ARIZONA STATE VETERINARY MEDICAL EXAMINING BOARD
1740 W. ADAMS ST., SUITE 4600, PHOENIX, ARIZONA 85007
PHONE (602) 364-1PET (1738) FAX (602) 364-1039
VETBOARD.AZ.GOV

COMPLAINT INVESTIGATION FORM

If there is an issue with more than one veterinarian please file a separate Complaint Investigation Form for each veterinarian

PLEASE PRINT OR TYPE

FOR OFFICE USE ONLY

Date Received: Aug 23, 2018 Case Number: 19-16

A. THIS COMPLAINT IS FILED AGAINST THE FOLLOWING:

Name of Veterinarian/CVT: SARAH BASHAW

Premise Name: EL DORADO ANIMAL HOSPITAL

Premise Address: 16765 EAST PARKVIEW AVE.

City: FOUNTAIN HILLS State: AZ Zip Code: 85268

Telephone: (480) 837-0800

B. INFORMATION REGARDING THE INDIVIDUAL FILING COMPLAINT*:

Name: MICHAEL AND SUSAN NEULAND

Address: [redacted]

City: [redacted] State: [redacted] Zip Code: [redacted]

Home Telephone: [redacted] Cell Telephone: [redacted]

**STATE LAW REQUIRES WE HAVE TO DISCLOSE YOUR NAME UNLESS WE CAN SHOW THAT DISCLOSURE WILL RESULT IN SUBSTANTIAL HARM TO YOU, SOMEONE ELSE OR THE PUBLIC PER A.R.S. § 41-1010. IF YOU HAVE REASON TO BELIEVE THAT SUBSTANTIAL HARM WILL RESULT IN DISCLOSURE OF YOUR NAME PLEASE PROVIDE COPIES OF RESTRAINING ORDERS OR OTHER DOCUMENTATION.*

RECEIVED
AUG 23 2018
BY:

C. PATIENT INFORMATION (1):

Name: CHARLIE

Breed/Species: CORGI MIX

Age: 3 Sex: MALE Color: TRI COLOR

PATIENT INFORMATION (2):

Name: ______

Breed/Species: ______

Age: ______ Sex: ______ Color: ______

D. VETERINARIANS WHO HAVE PROVIDED CARE TO THIS PET FOR THIS ISSUE:

Please provide the name, address and phone number for each veterinarian.

SARAH BASHAW
EL DORADO ANIMAL HOSPITAL
16765 EAST PARKVIEW AVE.
FOUNTAIN HILLS AZ 85268
480-837-0800

E. WITNESS INFORMATION:

Please provide the name, address and phone number of each witness that has direct knowledge regarding this case.

Veterinarian staff at EL DORADO ANIMAL HOSPITAL that assisted with dental procedure.

Attestation of Person Requesting Investigation

By signing this form, I declare that the information contained herein is true and accurate to the best of my knowledge. Further, I authorize the release of any and all medical records or information necessary to complete the investigation of this case.

Signature: Susan Newland
by: [signature] UCC 1-308 without prejudice

Date: 8/20/2018

F. ALLEGATIONS and/or CONCERNS: Please provide all information that you feel is relevant to the complaint. This portion must be either typewritten or clearly printed in ink.

At the end of 2017, Dr. Bashaw recommended dental work for Charlie (i.e. Pet Dog) and we scheduled the appointment. Charlie arrived on Tuesday July 24th, 2018. The recommendation was to have his front large canine tooth that was capped to be examined and likely removed since Dr. Bashaw believed it may become an issue in the future. However, once Charlie was in the procedure, we received a call from the office and were informed this large tooth was actually OK, however 4 others needed to be extracted. This was very surprising since Charlie was not showing any signs of pain, discomfort, bad breath or any other symptom concerning his mouth. Charlie had extensive dental work done before we found him at a rescue site, so we assumed this made sense based on Dr. Bashaw's recommendation. We of course agreed and his 4 other teeth were extracted based on our veterinarian's advice.

We were told that Charlie did great he came home with some pain medication. That evening he was lethargic and was not hungry or thirsty. When he came home he had dark liquid diarrhea. The next day July 25, 2018 he was no better and we called the office and were given some anti-biotic (250mg Metronidazole, 1 pill every 12 hours) pills. We could only get him to take one the first day.

On Thursday morning July 26, 2018 Charlie was unresponsive. We arrived at the office as soon as it opened (7:30am) and he was taken back to be evaluated. Dr. Bashaw informed us he was in very bad shape and they were going to treat him. Later that day Dr. Bashaw called and explained she believed he had Sepsis and it was likely he would not get better. We arrived back at the office around noon and after a talk with Dr. Bashaw we agreed that having Charlie put to sleep was the only option since he had deteriorated so quickly. At this point we still didn't know how he got so sick so quickly. We requested and paid for the Necropsy report and Dr. Bashaw arranged for everything.

Dr. Bashaw received the report and reviewed the report with Mike Neuland, and elaborated that it is just a horrible situation that no one could have foreseen. She explained that she had not prescribed antibiotics for him because she doesn't for most of the other dental procedures she performs. Her conclusion is that it is just 1 in a million situations that no one could have predicted or guarded against.

The tragic loss of Charlie after a procedure to pull 4 teeth that we had NO IDEA were an issue for Charlie is still too unbelievable and we can't understand all the factors. We want a third party evaluation of all the aspects of what happened to Charlie.

I contacted Midwestern on 8/20/2018 and spoke with Justin. He assured me he placed a hold on all samples for the case number MW18-0577 dated 07/27/2018 so that they will not be discharged after the 10 days stated in the report.

1) I am including the report section of the Midwestern Diagnostic Pathology report. I didn't receive the slides showing the graphic nature of the Necropsy, but Sarah Bashaw said they were available in the full report.

2) I am also including some reference material Dr. Bashaw gave me during the Necropsy review concerning antibiotic's for dental procedures.

3) I am also including the Discharge instructions we received upon picking Charlie up from EL DORADO ANIMAL HOSPITAL.

4) I downloaded 19 images off the www.metronwebviewer.com since they no longer available (under ID: Charlie) of the dental procedure. I inserted them into this file, but I can deliver these to you in another file if you need them.

Thank you for attention to our request for review of our concerns surrounding Charlie's sudden, tragic death.

MICHAEL and SUSAN NEULAND

El Dorado
ANIMAL HOSPITAL

16765 East Parkview Avenue
Fountain Hills, AZ 85268

Arizona State Veterinary Medical Examining Board
1740 W Adams St. Ste. 4600
Phoenix, AZ 85007

Re: 19-16 in Re: Sarah Bashaw, D.V.M.

Dear Veterinary Investigations Division:

The following is my typewritten narrative of the account of my position with respect to the events associated with the above referenced inquiry regarding patient "Charlie" Neuland, owners Michael and Susan Neuland.

I first met Charlie November 25, 2017 after he was adopted by the Neuland's from Love of Dogs Rescue on November 1. They asked for a dental evaluation, because he had history of dental work performed at another veterinary hospital while he was owned by the rescue.

I had reviewed the copies of the records that the owner had with them prior to the examination on November 25. He had a dental cleaning on September 11, 2017, with 6 incisors teeth extractions and a note that said "lower canine tooth capped, will last 3-7 years". Some of the records were from Ingleside Animal hospital and some from Saguaro Veterinary Clinic. Some of the material was crossed out, but I believe Saguaro Veterinary Clinic performed the dental procedure. The notes I had were confusing. The invoice from Saguaro veterinary clinic had a handwritten note by the invoiced line "pulp cap" that says "to cover exposed canine tooth". The dental chart has a note pointing to the upper left canine tooth and it states "lower canine capped to cover exposed root" and then another note in the notes section stating "404 – pulp cap" which would be referring to the lower right canine tooth. I have included these documents as I believe it is important to know what information I had prior to recommending dental work for Charlie.

Given the apparent confusion by the veterinarian who had performed the dental work, and the fact that I am aware that vital pulp therapy, or "pulp cap" as this veterinarian referred to it, is a very technically challenging procedure, I had strong concerns that the treated tooth was non vital, and would need radiographic evaluation and possible extraction.

Upon my examination of Charlie on November 27, 2017, I did indeed see that the lower right canine tooth was blunted and short, with a smooth surface that to me appeared to have been cut flush with near to the gum line. I explained my concerns to the owner during the exam and that the only way to tell if this tooth was vital was to anesthetize him and assess with radiographs and close visual evaluation, as well as probing. Charlie was not very compliant for his overall evaluation of the mouth, but there were many missing teeth and he had mild calculus and gingivitis elsewhere. I explained our full dental procedure process to the owner and recommended they schedule soon, and I was planning to extract 404.

On July 24, 2018 Charlie was presented for the dental evaluation under anesthesia. He was clinically well and they expressed no concerns to me that morning. An estimate was presented, including expected oral surgery time, as well as an anesthesia and dentistry consent form, explaining the risks of anesthesia, the measures we take to reduce those risks and a statement of whether it was allowed for me to extract teeth where necessary. Michael Neuland signed both documents, marking the statement "I authorize the extraction of teeth where necessary even if the doctor is unable to reach me".

I performed a full physical exam (limited by Charlie's behavior and resistance to handling) which was normal, and performed in house blood testing with a 10 chemistry panel, electrolytes and full CBC. His BUN was elevated to 35, slightly above normal of 27, but his Creatinine was normal. The rest of the panel was normal. I deemed the elevation in BUN to be likely from dehydration and proceeded to formulate an anesthesia plan.

Because he was resistant to restraint and handling, I tailored my preoperative sedative injection to include 3 mcg/kg of Dexdomitor with 0.02mg/kg atropine and 1 mg/kg of morphine sulfate. The Dexdomitor dose worked nicely and he was amenable to handling for IV catheter placement after about 10 minutes. He was pre-oxygenated during IV catheter placement which was performed by clipping the hair, and applying one chlorhexidine scrub wipe followed by one alcohol wipe. A new, sterile T-port was placed to the catheter and attached to a new, sterile extension set, then attached to an IV line attached to a ketamine/lidocaine CRI fluid bag that we use on multiple patients, changing extension sets in between. Charlie was given loading doses of the ketamine/lidocaine CRI, then induced with 1.3mg/kg of Alfaxan IV, intubated with a 9mm ETT, attached to isoflurane/oxygen and started on the IV CRI. He was immediately attached to ECG monitoring, SpO2, oscillometric BP, ETCO2, and had continuous temperature monitoring begun. He was placed in dorsal recumbency and covered with a circulating water

blanket. His eyes were lubricated and the ETT cuff was inflated until no leaks were heard. His first set of vitals was recorded 3 minutes after induction, and continued every 10 minutes, although the vitals are visually monitored every 2-5 minutes. A dedicated certified veterinary technician (Kelsey Oakman) was present and monitored the anesthesia for the duration of the procedure, with no other distraction or responsibilities. Charlie was given an intraoperative dose of meloxicam 0.1mg/kg IV. He was administered 135ml of the CRI fluids over the duration of the procedure at a rate of 77ml/hr. His vitals were normal and steady the entire procedure. He was under anesthesia for a total of 1 hour and 47 minutes. His recovery was slow, but uneventful, and I suspected the slow recovery was because of the preoperative administration of Dexdomitor, which was not reversed with Antiseden due to his difficult nature.

The dental procedure was started soon after induction. Full mouth radiographs were obtained by myself and reviewed. The 404 right lower canine tooth radiograph showed the tooth to be vital, much to my surprise. I was pleased, because extracting lower canine teeth can be challenging. But further radiograph evaluation showed suspected furcation exposures at 107 207 307 and 408, as well as widened ligament space and bone loss around 311. I performed dental probing and charting which did confirm complete furcation exposure on 107 307 and 408 with a grade 2 furcation exposure and palatal root recession/exposure at 207. The 311 was mobile. I proceeded to perform a full dental cleaning with ultrasonic scaling, and hand instruments to clean subgingivally. I then called the owner to explain my findings. He was surprised to hear that I needed to remove other teeth, and I explained how periodontal disease can be undetected, and that these areas of bone loss were more lingual/palatal and difficult to see on awake evaluation. He approved my request to move forward with extractions. I performed the extraction of 311 in a closed fashion, and extractions of 107 207 307 408 by lifting gingival envelope flaps, and then sectioning the teeth, removing some buccal bone, and elevating the roots. The roots of 307 and 408 did break during the removal, which is common for me on those teeth because the roots are quite long. The tips were retrieved in a routine fashion (removed more buccal bone, and created a moat around each tip to facilitate elevation). I used a new, unused dental bur for the procedure, and instruments that are sterilized between each patient. After extraction, I confirmed complete removal with post op radiographs. I then ensured each socket was clean and had abundant blood present to form a clot to aid in healing, and they were sutured with 4-0 monocryl. A final inspection, minor cleaning, polishing and rinsing, and Oravet application completed the procedure. His mouth was checked for debris, liquid or gauze and he was moved to the recovery cage for extubation.

There was nothing about the anesthesia, procedure, or recovery that struck me as atypical or unusal, nor did I expect the following to occur.

The next day, November 25, 2017, I was planning to call the owner to check on Charlie as I do with all of my procedures the next day, but the owner called us first. Kamilla Benforte, technician, spoke with the owner. Kamilla came to me and told me that the owner complained that Charlie had diarrhea and was not eating. She said she already told the owner not to give the metacam that was prescribed for pain and she wanted to know if I wanted to do anything else. I told Kamilla to have them come pick up some Metronidazole and let us know if he is not getting better. I assumed this was the typical diarrhea some pets get after anesthesia. I planned to check on him the next day.

Upon our office opening the next day the owners called and stated Charlie was unresponsive. We advised them to bring him right down. On presentation he was laterally recumbent, unresponsive and unaware but breathing and had a bounding heartbeat. Vitals showed temperature of 105.8, pulse 120bpm and respirations of 40rr/min. There was severe swelling of the maxilla with petichia, echymoses, necrosis of all extraction sites, diffuse oozing of dark purple blood especially with pressure applied around the sockets. There was mucus and blood on rectal exam. I suspected sepsis and/or Systemic Inflammatory Response Syndrome (SIRS) with systemic organ shut down. Blood tests were performed and supported the diagnosis. Coagulation values were recorded and were supportive of disseminated intravascular coagulation (DIC). An IV catheter was placed, an IV bolus given, antibiotics and IV dextrose begun and he was monitored for and seizure activity. He did have one episode of paddling, so midazolam was administered.

After obtaining the diagnostics, I consulted with Mike and Susan personally, explaining sepsis/SIRS/DIC and that I was very concerned about his prognosis. They elected to have me attempt to treat him for a few more hours to see if there was any response to therapy, and I would follow up with them before noon. During the morning I called AVECCS in Gilbert AZ and spoke with their criticalist, Dr. Smith, to get a second opinion on the diagnosis as well as therapy. She did agree that Charlie was in sepsis and needs aggressive therapy, and that his prognosis is very guarded at this point. Further aggressive therapy would require transfer to their facility, plasma transfusions, possibly imaging, finding the point of sepsis (GI ulcer, other source of infection) possibly surgery, and if DIC is occurring he has only a 10-50% chance of recovery even with aggressive therapy.

I met with the owners at 11:30 to discuss the further plan. Charlie had made no improvements since admit. They agreed that euthanasia was the most

humane option. Prior to euthanasia, we began to discuss the causes, which I told them I couldn't say with certainty what caused this. They and I both felt that it was related to the anesthesia and/or surgery, but that there was no evidence to me at this point of negligence, however it isn't my place to determine if I was personally negligent and that is what the state veterinary board is there to do. Mike then proceeded to tell me that he had contacted the board and they advised we obtain a third party necropsy. I then handled the arrangements for the necropsy, and once it was all finalized, the bills paid and the courier arranged to pick up Charlie, he was euthanized.

I was leaving town the next day for two weeks, so I asked Mike if he would be kind enough to wait upon my return to discuss the necropsy findings before deciding whether to file a complaint against me, and he said he would.

Charlie was submitted to Midwestern University for necropsy and the report was available August 12. The report confirmed sepsis. I spoke with the pathologist who evaluated the case the next day. She felt that the most likely entry of the bacteria was through the oral surgery sites because they were cultured from the maxillary lymph nodes and lungs, which are the nearest draining areas. I asked her how that would happen in an otherwise healthy dog, and why his immune system wouldn't prevent full body sepsis from happening, and at that point our conversation was strictly based on conjecture. She agreed that we will probably never know what the actual cause of the bacterial entry was, but that it is a complication of surgery, and although unlikely, it can happen.

I met with Mike Neuland to discuss the necropsy report on September 13. I explained sepsis. There isn't a clear answer as to why, but the bacteria most likely entered through the extraction sites. He asked me why I performed so many extractions and whether it was routine to do that many vs. staging them, and I explained that yes, this is typical and not unusual. We discussed antibiotic usage in animals for dental procedures and simple exodontia (i.e. extractions from normal healthy bone, vs. osteomyelitis) and why I do not routinely use antibiotics. I gave him several pieces of documentation about peri-operative antibiotics and why or why not to use them. I believe he has submitted these documents to your office for reference. I did not save copies of these pieces of material after giving them to the owner. I have not used peri-operative antibiotics routinely for many years in dental patients with extractions, and did not feel that antibiotic use would have prevented the outcome in Charlie's case.

Sincerely,

Sarah Bashaw, DVM

DOUGLAS A. DUCEY
- GOVERNOR -

VICTORIA WHITMORE
- EXECUTIVE DIRECTOR -

ARIZONA STATE VETERINARY MEDICAL EXAMINING BOARD

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INVESTIGATIVE COMMITTEE REPORT

TO: Arizona State Veterinary Medical Examining Board

FROM: PM Investigative Committee: Donald Noah, D.V.M. - Chair
Amrit Rai, D.V.M.
Adam Almaraz - ***Absent***
Christine Butkiewicz, D.V.M.
William Hamilton

STAFF PRESENT: Tracy A. Riendeau, CVT – Investigations
Victoria Whitmore, Executive Director
Michael Raine, Assistant Attorney General

RE: Case: 19-16
Complainant(s): Michael and Susan Neuland
Respondent(s): Sarah Bashaw, DVM (License: 4307)

SUMMARY:
Complaint Received at Board Office: 8/23/18
Committee Discussion: 11/6/18
Board IIR: 12/12/18

APPLICABLE STATUTES AND RULES:
Laws as Amended April 2018 (Green); Rules as Revised September 2013 (Yellow)

On July 24, 2018, "Charlie," a 3-year-old male Corgi mix was presented to Respondent for a dental procedure. Dental radiographs were performed, the teeth were cleaned and Respondent extracted four teeth. The dog recovered and was discharged later that day.

The following day, Complainants reported that the dog was not eating and having diarrhea. They were instructed to not administer the metacam and to pick up metronidazole.

On July 26, 2018, the dog was presented to Respondent unresponsive. Respondent suspected sepsis and/or SIRS – diagnostics and treatments were performed. Due to the dog's guarded prognosis, Complainants elected to humanely euthanize the dog.

A necropsy was performed and confirmed Respondent's suspicions.

Complainants were noticed and appeared.
Respondent was noticed and appeared.

The Committee reviewed medical records, testimony, and other documentation as described below:

- Complainant(s) narrative: *Michael and Susan Neuland*
- Respondent(s) narrative/medical record: *Sarah Bashaw, DVM*
- Witness(es) narrative: *Hospital staff*

PROPOSED 'FINDINGS of FACT':

1. Respondent explained that she saw the dog in November 2017 shortly after the dog was adopted. The dog had dental work in September 2017 and 6 incisors were extracted. There were also notations that said the lower canine tooth was capped – pulp cap to cover exposed root. Respondent had concerns of the tooth's vitality and recommended radiographic evaluation and possible extraction.

2. On July 24, 2018, the dog was presented to Respondent for a dental procedure including radiographs and possible extractions. Upon exam, the dog had a weight = 34 pounds, a temperature = 101.4 degrees, a pulse rate = 120bpm and a respiration rate = 40bpm. Blood was collected and was within normal limits. The dog was pre-medicated with morphine, dexdomitor, and atropine; an IV catheter was placed and plasmalyte with ketamine and lidocaine was administered (ketamine/lidocaine CRI bag is used on multiple patients and extension sets changed in between), and the dog was induced with Alfaxan and maintained on isoflurane and oxygen. The dog was administered an intraoperative dose of meloxicam.

3. Respondent performed full mouth radiographs – the lower left capped canine tooth was vital but there were suspected furcation exposures to four other teeth; 107, 201, 307, and 408, and widened ligament space and bone loss around 311 (mobile). After performing the dental scaling, Respondent contacted Complainants with her findings. They were surprised that other teeth required extraction. Respondent explained how periodontal disease can be undetected and that these areas of bone loss were more lingual/palatal and difficult to see on awake evaluation; Complainants approved extractions.

4. Respondent stated that roots of 307 and 408 did break during removal. The tips were retrieved in a routine fashion. A new, unused dental bur was used and instruments that were sterilized between each patient. Post-op radiographs confirmed complete removal; each socket was cleaned and sutured. The dog's teeth were polished and rinsed, Oravet was applied and the dog recovered. The dog was discharged later that day.

5. The following day, Complainants called before Respondent had a chance to check on the dog to report the dog was not eating and having diarrhea. Hospital staff told Complainants to discontinue the metacam and Respondent had them pick up metronidazole. Complainant stated they were only able to give the dog one dose.

6. On July 26, 2018, Complainants contacted Respondent reporting the dog was unresponsive. The dog was presented to Respondent laterally recumbent, unresponsive and unaware but breathing and a bounding heartbeat; T = 105.8 degrees, P = 120bpm and R = 40rpm. Respondent noted severe swelling of the maxilla with petichia, echymoses, necrosis of all sites, diffuse oozing of dark purple blood especially with pressure applied around the sockets. There

was mucous and blood on rectal exam. Respondent suspected sepsis and/or SIRS with systemic organ shut down. Blood work was performed and supported her diagnosis. Coagulation values were recorded and supportive of DIC. An IV catheter was placed, IV bolus was administered, antibiotics and dextrose initiated. There was one episode of seizure activity and midazolam was administered.

7. Respondent spoke with Complainants with respect to her findings and concerns of the dog's prognosis. They elected to have the dog treated for a few hours to see if there was any response to therapy. Respondent contacted a criticalist who agreed that the dog was in sepsis and needed aggressive therapy; prognosis very guarded.

8. Complainants returned after a few hours to see how the dog responded to treatment. Since the dog made no improvements, they agreed euthanasia was the most humane option. The dog was submitted for necropsy.

9. Necropsy comments were:
The history and postmortem findings are consistent with post-dental surgical site infection followed by sepsis and multi-organ failure. Bone underlying the extraction sites did not appear to be involved. Moderate growth of Staphylococcus pseudintermedius, a prevalent bacterium in canine mucosa that can act as an important bacterial pathogen, was cultured from the lung and a maxillary lymph node. Acute necrosis in the heart may have developed secondary to bacterial toxins, disseminated intravascular coagulopathy, and/or sepsis-related hypoxia or ischemia.

COMMITTEE DISCUSSION:

The Committee discussed that post-surgical sepsis cases can occur especially when dealing with the oral cavity. The use of post-surgical antibiotics is still being debated – they are rarely used in human dental practices unless there is a cardiac or other issue, even post extractions.

The Committee commented that this was an uncommon, unforeseen complication, but it is possible. However, currently antibiotics are not recommended pre or post dental procedures unless there is a known issue. A post dental procedure infection occurred and what made this dog susceptible is unknown; even if antibiotics were dispensed, the outcome may not have changed.

COMMITTEE'S PROPOSED CONCLUSIONS of LAW:

The Committee concluded that no violations of the *Veterinary Practice Act* occurred.

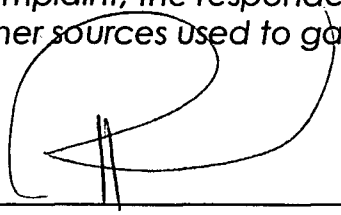
COMMITTEE'S RECOMMENDED DISPOSITION:

Motion: It was moved and seconded the Board:

Dismiss this issue with no violation.

Vote: The motion was approved with a vote of 4 to 0.

The information contained in this report was obtained from the case file, which includes the complaint, the respondent's response, any consulting veterinarian or witness input, and any other sources used to gather information for the investigation.



Tracy A. Riendeau, CVT
Investigative Division